

Journal of the Minnesota Academy of Science

Volume 51 | Number 3

Article 2

1985

Front Matter

Follow this and additional works at: <https://digitalcommons.morris.umn.edu/jmas>

Recommended Citation

(1985). Front Matter. *Journal of the Minnesota Academy of Science*, Vol. 51 No.3, 1-2.
Retrieved from <https://digitalcommons.morris.umn.edu/jmas/vol51/iss3/2>

This Article is brought to you for free and open access by the Journals at University of Minnesota Morris Digital Well. It has been accepted for inclusion in Journal of the Minnesota Academy of Science by an authorized editor of University of Minnesota Morris Digital Well. For more information, please contact skulann@morris.umn.edu.

Journal of the
**MINNESOTA
ACADEMY
OF SCIENCE**

Volume 51, No. 3, 1985/86

This Issue:

**Abstracts for 54th
Annual MAS Meeting**

The Minnesota Academy of Science was formed in 1932 to provide for "the advancement of pure and applied science through the fostering of research, education, and understanding." The Academy is a non-profit organization.

OFFICERS

PRESIDENT
Wayland Ezell
St. Cloud State University

PRESIDENT-ELECT
Theodore Molitor
Alexander Ramsey Sr. High

SECRETARY-TREASURER
Russell Adams
University of Minnesota

DIRECTORS

Jane G. Belau
Control Data Corp.

Max M. DeLong
Northern States Power

Karin Ostrand
Harding High School

William Bessler
Mankato State University

Adela S. Elwell
Science Museum of Minnesota

William Shepherd
University of Minnesota

Hugh Bryce
3M Company

Gary Goken
3M Company

Mary Stiedemann
General Mills

Connie Clark
Vet. Adm. Medical Center

JUNIOR ACADEMY

DIRECTOR
Christie Currie
Mahtomedi

PAST DIRECTOR
Wayne Anderson
St. Claire High School

MINNESOTA SCIENCE TEACHERS' ASSOCIATION

PRESIDENT
Elizabeth Thornton
Wayzata High School

EXECUTIVE DIRECTOR

M.I. Harrigan

EXECUTIVE EDITOR
Daniel Gilboe
Vet. Adm. Medical Center

SCIENTIFIC EDITOR
Nancy Z. Hartung
College of St. Thomas

FEATURES EDITOR
Keith K. Klein
Hamline University

MANAGING EDITOR
Meredith McNab

SECTION EDITORS

AQUATIC BIOLOGY
 Florence Gleason,
Gray Freshwater Biological Institute

BOTANY AND AGRICULTURE
 David French, *University of Minnesota — St. Paul*

BUSINESS AND ECONOMICS
 Richard Sielaff, *University of Minnesota — Duluth*

CHEMISTRY
 Sumita Mitra, *3M Company*

CHRONOBIOLOGY
 Franz Halberg, *University of Minnesota — Minneapolis*

CONSERVATION AND NATURAL AREAS
 David F. Grether, *St. Cloud State University*

ECOLOGY
 Merrill Frydendall, *Mankato State University*

GENETICS AND CELL BIOLOGY
 Charles Rodell, *St. John's University*

GEOGRAPHY
 David Lanegran, *Macalester College*

GEOLOGY AND SOIL SCIENCE
 Russell Adams, *University of Minnesota — St. Paul*

PHYSICS AND ENGINEERING
 Fred Williamson, *Honeywell, Inc.*

SCIENCE EDUCATION
 Sr. Lucy Knoll, *Administrative Center,
 Sisters of St. Joseph of Carondelet*

SOCIAL SCIENCES and POLITICAL SCIENCE
 William Peterfi, *University of Minnesota — Morris*

ZOOLOGY
 Mark Davis, *Macalester College*

EDITORIAL ADVISORY BOARD

Linda Aasen, *University of Minnesota*; Steven D. Clarke, *University of Minnesota*; Adela Elwell; Mark Engebretson, *Augsburg College*; Wayne Gergen; Daniel Gilboe, *Vet. Adm. Medical Center* (chair); Bradley M. Gottfried, *College of St. Catherine*; Sylvia Kerr, *Hamline University*; James Lynskey, *Hamline University*; Meredith McNab; William Peria, *University of Minnesota*; John Romano, *University of Minnesota*.

Address Editorial Correspondence to: Editor, Minnesota Academy of Science Journal, Suite 916, Pioneer Building, St. Paul, MN 55101

Journal of the **MINNESOTA ACADEMY OF SCIENCE**

Volume 51, No. 3, 1985/86

Contents

Academy News & Notes	2
Calendar of Events	2
Articles	
The Development of Elementary and Secondary Education Policy in the Minnesota Legislature, <i>J.K. Krupey, G. Mammenga</i>	3
Fungicides for Control of <i>Pythium ultimum</i> on Greenhouse-Grown Geraniums, <i>N. L. Olson, F. L. Pfleger</i>	10
Quaternary Geology and Soils of Mower County, Minnesota, <i>G. M. McCormick</i>	27
Ultrastructure of Flagellated Chrysophytes. IV. <i>Chrysosphaerella</i> , <i>D. E. Wujek</i>	33
Abstracts for 54th Annual Meeting	13
Notice to Contributors of Articles	37

The Minnesota Academy of Science does not take a stand on issues that may be discussed in articles published in the Journal. Readers should bear in mind that views expressed in these articles are strictly those of the authors.

ACADEMY NEWS & NOTES

From the Editors

Join us at the 54th Annual Meeting

The Minnesota Academy of Science has held an annual meeting for over 50 years, and during that time we have seen great changes, both in format and in content. The current format—papers presented by members and a plenary session—has been used for the past three years, successfully, we think, but there is still room for improvement.

The time when all scientists could meet and discuss common questions seems to have passed, at least with respect to the technical details of those problems. Yet, there is still a lot to be gained in attending the annual meeting. For scientists working in smaller institutions, it provides an opportunity to meet with colleagues who would not otherwise be available for comments, critiques, and news. A great many of the presenters are students, speaking for the first time—students who benefit from the opportunity to meet scientists who are not their teachers. The presence of these active and qualified young scientists should serve as inducement enough for members looking for potential graduate and undergraduate students. What better way to assess the potential of a prospective student than to observe that student functioning as a scientist? And what better way to advertise your own program than to display its results? Can we make the annual meeting better? Sure—but you will have to be there. Join us at the Academy's 54th Annual Meeting May 2nd and 3rd at St. Cloud State University.

The Editors

Meet the Academy

The diversity of interests among Academy members is reflected in the work of member **William L. Downing**, a faculty member in Hamline University's Biology Department. Dr. Downing is an elected supervisor of the Ramsey County Soil and Water Conservation District, an active field biologist working on unionid mussels, and a former member of the Metropolitan Waste Control Commission. He received his M.S. and Ph.D. from Iowa, where he specialized in zoology. His primary research interests for many years were the genetics and physiology of *Paramecium*. His current work grew out of his interest in fresh-water conservation and has been concerned with the effects of acid precipitation on fresh-water biota. He is the author of numerous government publications and the editor of a symposium volume "National Conference on Urban Erosion and Sediment Control: Institutions and Technology." Dr. Downing maintains a lively interest in faculty affairs, serving as past-president of the Hamline AAUP chapter and as faculty secretary.

CALENDAR OF EVENTS

Editor's note: This calendar is intended to inform MAS members and others about scientific meetings and symposia of interest in Minnesota and surrounding states. Please send notices of upcoming events to The Editor, Minnesota Academy of Science Journal, Suite 916 Pioneer Building, St. Paul, MN 55101.

April

20-22: 49th Annual State Science & Engineering Fair. Radisson Hotel, St. Paul, MN. Christie Currie, Mahtomedi High, director.

25: Thirteenth Annual Undergraduate Research Symposium on Biology. St. Mary's College, Winona, MN.

May

2-3: Minnesota Academy of Science 54th Annual Meeting. St. Cloud State University, St. Cloud, MN. Len Soroka and Wayland Ezell, local chairs.

6: Lecture by Dr. Jane Goodall. 7 p.m., Northrop Auditorium. University of Minnesota, Minneapolis, MN. Tickets \$8.00 (\$6.50 for students) available at Dayton's and Northrop Ticket Office.

9-10: Spring Systematics Symposium: "The Evolution of Human Hunting." Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, Chicago, IL 60605.

June

1-5: International Research Conference: "Extrachromosomal Elements in Lower Eukaryotes." University of Illinois at Ur-

bana-Champaign, Urbana, IL 61801-8037.

1-6: Special course offering: "Recombinant DNA Technology." School of Continuing Studies, Owen Hall 201, University of Indiana, Bloomington, IN 47405.

22-26: Tenth North American Prairie Conference. Texas Woman's University, P.O. Box 22675, Denton, TX 76204.

July

20-25: Special course offering: "Viral Techniques." School of Continuing Studies, Owen Hall 201, University of Indiana, Bloomington, IN 47405.